Respiratory Medicine (2004) **98**, 677–678

respiratoryMEDICINE

CASE REPORT

Unilateral vocal cord palsy: a non-psychogenic cause of vocal cord dysfunction

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Received 26 August 2003; accepted 12 December 2003

KEYWORDS
Vocal cord palsy;
Vocal cord dysfunction

Summary We believe this to be the first case report of VCD occurring in a patient with an underlying unilateral paralysis of the vocal cord. VCD, though rare, should be considered in any patient presenting as asthma who does not respond to conventional treatment. Physicians need to remain aware of the aetiological, co-diagnosis or causative factors that can be associated with VCD.

Introduction

Vocal cord dysfunction is a functional disorder normally thought to have a psychological aetiology. A few cases have been reported in association with organic disease but these are rare exceptions. We report a case of classical presentation of vocal cord dysfunction in a young female patient found to have a unilateral vocal cord paralysis of unknown aetiology.

Case report

A 29 year old lifelong non-smoker presented to a tertiary referral respiratory centre with a 5 year history of breathlessness and wheeze provoked by cold air, alcohol and emotional triggers. There was no history of a cough. She reported that her 'voice changed' during attacks. The only significant past medical history was closure of a patent ductus arteriosus at the age of two.

At the time of presentation she had been treated for 4 years for 'asthma' with inhaled steroids and bronchodilators but reported no response to these treatments. Clinical examination was normal. Lung function showed a forced expiratory volume (FEV_1) and functional vital capacity (FVC) of 83% and 91% predicted, respectively. The inspiratory flow volume loop (Fig. 1) suggested mild large airways obstruction.

The provisional diagnosis made was of vocal cord dysfunction. Laryngoscopy was carried out without sedation, this revealed a complete paralysis of the left vocal cord held in adduction. There was intermittent adduction of the functioning right vocal cord which reproduced her symptoms. Speech therapy has greatly improved the breathlessness and wheeze, she has been withdrawn from all asthma therapy.

Discussion

Vocal cord dysfunction (VCD) is characterised by paradoxical adduction of the vocal cords during

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0954-6111/$ - see front matter © 2004 Published by Elsevier Ltd.
doi:10.1016/j.rmed.2003.12.004

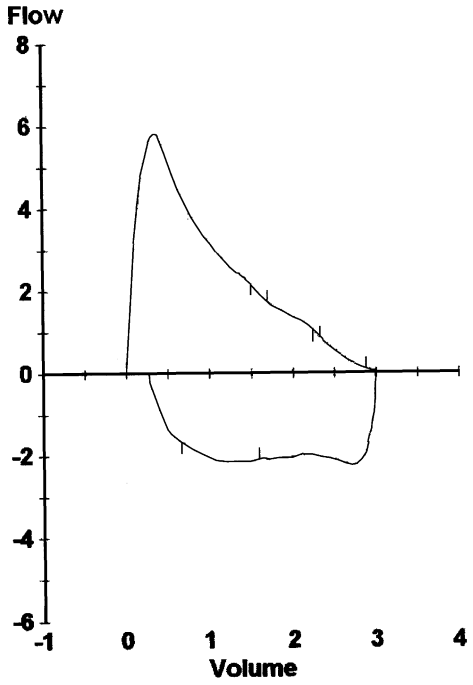

Figure 1 Flow volume loop of the patient showing a mild inspiratory large airway obstruction.

inspiration. It is a condition which can closely mimic asthma and its misdiagnosis often leads to inappropriate treatment.[1] It is most common in single women between the ages of 20 and 40 and its aetiology is usually attributed to psychological factors following first attacks. When originally described in 1974 it was known as 'Munchausen's Stridor' though it is clear that patients have no active control over attacks when they occur.[2–4] It has been postulated more recently that laryngeal hyperresponsiveness resulting in altered autonomic balance may underlie VCD.[5]

There are occasional case reports of VCD occurring in patients with preceding organic disease e.g. after cardiac surgery and thyroidectomy,[6,7] but we have been unable to find any reports in the literature of a unilateral vocal cord palsy presenting as VCD. The cause of this patient's vocal cord palsy is uncertain. A congenital form is described but this is usually bilateral and presents early in life.[8] The patient's history of cardiac surgery may be relevant as damage to the recurrent laryngeal nerve is a recognised complication of surgery, however this normally manifests in the peri-operative period. It would be most unusual for symptoms to present 25 years later as in this case.

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